REMARKS/ARGUMENTS

Status of Claims

Claims 13-23 stand rejected.

Claims 13 and 18 are currently amended.

Thus, claims 13-23 are pending in this patent application.

The Applicants hereby request further examination and reconsideration of the presently claimed application.

Claim Rejection – 35 U.S.C. § 103

Claims 13-19 and 23 stand rejected under 35 U.S.C § 103 (a) as being unpatentable over U.S. Patent Application Publication 2004/0037268 (*Read*) in view of U.S. Patent Application Publication 2003/0093563 (*Young*). Claim 20 stands rejected under 35 U.S.C § 103 (a) as being unpatentable over *Read* in view of *Young* and U.S. Patent Application Publication 2002/0006780 (*Bjelland*). Claim 21 stands rejected under 35 U.S.C § 103 (a) as being unpatentable over *Read* in view of *Young* and U.S. Patent Application Publication 2004/0033806 (*Daniel*). Claim 22 stands rejected under 35 U.S.C § 103 (a) as being unpatentable over *Read* in view of *Young* and Patent Application Publication 2004/0095913 (*Westphal*). Claims 14-17 depend from independent claim 13, and claims 19-23 depend from independent claim 18. Thus, claims 13-23 stand or fall on the application of the combination of *Read* and *Young* to independent claims 13 and 18. The United States Supreme Court in *Graham v. John Deere Co. of Kansas City* noted that an obviousness determination begins with a finding that "**the prior art as a whole in one form or another contains all" of the elements of the claimed invention**. *See Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 22 (U.S. 1966) (emphasis added). The Applicants

respectfully assert that the combination of *Read* and *Young* fails to disclose all of the elements of independent claims 13 and 18, and consequently fails to render obvious claims 13-23.

The combination of *Read* and *Young* fails to render obvious claims 13-23 because the combination of *Read* and *Young* fails to disclose that the proxy server: (1) delivers the signaling message to a processing device of packet voice signaling or a service processing device in the second network, (2) modifies a third address in the IP header of a response signaling message from the processing device into the first address, (3) modifies an address of a response signaling in a load of the response signaling message, and (4) records the address of a call signaling in a load of the signaling message. Claims 13 and 18 read:

> 13. A method for implementing traversal through a Network Address Translation (NAT) server or a firewall (FW) located in a first network, the method comprising:
>
> recording a first address and port in an IP header of a signaling message of a call received from the NAT server or FW located in the first network;
>
> modifying the first address and port into a second address and port assigned by the proxy server for the call in the second network;
>
> analyzing the information in the signaling message;
>
> **recording an address and port of a call signaling in a load of the signaling message** and an address and port of Real-time Transfer Protocol (RTP) and Real-time Transfer Control Protocol (RTCP) of a media stream in the signaling message;
>
> modifying the address and port of the call signaling into the address and port of the call signaling of the second network assigned by the proxy server for the call;
>
> modifying the address and port of RTP and RTCP into the address and port of the second network assigned by the proxy server for the media stream;
>
> **delivering the signaling message to a processing device of packet voice signaling or a service processing device in the second network**;
>
> **modifying a third address and port in the IP header of a response signaling message from the processing device of packet voice signaling or the service processing device into the first address and port**;
>
> analyzing the information in the response signaling message;
>
> **modifying an address and port of a response signaling in a load of the response signaling message** into the recorded address and port of the call signaling in the load of the signaling message;

modifying a RTP and RTCP address and port of a media stream in the response signaling message into the recorded RTP and RTCP address and port of the media stream in the signaling message; and

sending the response signaling message to the NAT server or FW in the first network,

wherein the method is implemented in the proxy server located in the second network outside the NAT server or the FW.

18. A system for implementing traversal through a Network Address Translation (NAT) server or a firewall (FW) located in a first network, comprising:

a packet user terminal located in the first network, for initiating and receiving services;

the NAT server or FW, for providing services of accessing a second network for the packet user terminal and forwarding messages from and to the packet user terminal;

a proxy server located in the second network outside the NAT server or FW, **the proxy server being configured for**:

receiving a signaling message of a call from the NAT server or FW;

recording a first address and port in an IP header of the signaling message;

modifying the first address and port into a second address and port assigned by the proxy server for the call in the second network;

analyzing the information in the signaling message, recording an address and port of a call signaling in a load of the signaling message as well as an address and port of a media stream thereof;

modifying the address and port of the call signaling into the address and port in the second network assigned by the proxy server for the call, and modifying the address and port of the media steam into the address and port of the second network assigned by the proxy sever for the media stream; and

receiving a response signaling message sent to the packet user terminal;

modifying a third address and port in the IP header of the response signaling message into the first address and port;

analyzing the information in the response signaling message;

modifying an address and port of a response signaling in a load of in the response signaling message into the recorded address and port of the call signaling;

modifying an address and port of a media stream in the response signaling message into the recorded address and port of the media stream; and

delivering the response signaling message to the NAT server or FW; and

a soft-switching device, for providing integrated services and call control, forwarding to the proxy server the response signaling message sent to the packet user terminal when the response signaling message is received.

(Emphasis added). First, claims 13 and 18 recite that **the proxy server** delivers the signaling message to a processing device of packet voice signaling or a service processing device in the second network. In contrast, *Read's* **router** 34 delivers his message 53 to the processing device:

> The simple NAT function **in the router 34** changes the IP packets so that their destination address 17 becomes the true IP address 16 of terminal B1 12. The H.323 message 53 contained in the packets is not changed, but because the proxy server 42 inserted the true IP address 16 before sending the message 52, the message 53 forwarded by the router 34 now has the correct IP address 16. This forwarded message 53 contains information that identifies the call as originating with the user at terminal A1 10.

Read, ¶ 93 (emphasis added); *see also Read*, FIG. 4. As shown above, *Read's* **router 34, not his proxy server**, delivers his message 53 to the processing device. *Young* does not cure the deficiencies in *Read*. Thus, the combination of *Read* and *Young* fails to disclose that the proxy server delivers the signaling message to a processing device of packet voice signaling or a service processing device in the second network.

Second, claims 13 and 18 recite that **the proxy server** modifies a third address and port in the IP header of a response signaling message from the processing device into the first address and port. In contrast, *Read's* **router** modifies the IP address in the IP header of the response signaling message:

> The setup message altered **by the router 34** is then represented by:

TCP Packet	Source	IP/Port: 45.6.7.8/2777
	Destination	IP/Port: 10.1.1.1/1720
H.323	Source	IP/Port: 45.6.7.8/2777
	Destination	IP/Port: 10.1.1.1/1720

> Then, as shown in FIG. 9D, the terminal B1 12 replies with an "open logical channel acknowledge["] response 66 that contains the true IP addresses 16 of terminal B1 12, and the port numbers of the dynamic ports 35 that the terminal B1 has opened.
>
> The "open logical channel acknowledge" message 66 gives the RTP and RTCP addresses of the terminal B1 12, here 10.1.1.1/PB2 and 10.1.1.1/PB3. In this

example, PB2 is an even number, and PB3=PB2+1. This message 66 is placed into IP packets having a source IP address equal to the true IP address 16 of the terminal B1 12, and a destination address equal to the IP address 44 of the proxy server 42. The message 66 passes through **the router 34 which uses the simple NAT function** to forward a translated message 67 to the proxy server 42 having the true IP address 16 of terminal B1 12 changed to the public IP address 17. The packet reaches the proxy server 42, which uses the dynamic port numbers from the message plus the public IP address (206.1.1.1) of terminal B1 12 to open its pre-assigned ports 33 to send the audio signal to terminal B1 12. The router 34 does not change the addresses in the H.323 message.

This is represented by:

			Before	After
TCP	Source	IP/Port:	10.11.1/PB1	206.1.1.1/PB1
	Destination	IP/Port:	45.6.7.8/2777	45.6.7.8/2777
RTP	Address		10.1.1.1/PB2 (UDP)	unchanged
RTCP	Address		10.1.1.1/PB3 (UDP)	unchanged

Read, ¶¶ 92 & 114-116 (emphasis added); *see also Read*, FIGS. 5 & 9D. As shown above, *Read's* **router 34, not his proxy server**, modifies the IP address in the IP header of the response signaling message. *Young* does not cure the deficiencies in *Read*. Thus, the combination of *Read* and *Young* fails to disclose that the proxy server modifies a third address and port in the IP header of a response signaling message from the processing device into the first address and port.

Third, claims 13 and 18 recite that the proxy server **modifies an address of a response signaling** in a load (e.g. payload) of the response signaling message. In contrast, *Read* **does not modify the address of his response signal** in the payload of his IP packet:

> Then, as shown in FIG. 9D, the terminal B1 12 replies with an "open logical channel acknowledge["] response 66 that contains the true IP addresses 16 of terminal B1 12, and the port numbers of the dynamic ports 35 that the terminal B1 has opened.
>
> The "open logical channel acknowledge" message 66 gives the RTP and RTCP addresses of the terminal B1 12, here 10.1.1.1/PB2 and 10.1.1.1/PB3. In this example, PB2 is an even number, and PB3=PB2+1. This message 66 is placed into IP packets having a source IP address equal to the true IP address 16 of the terminal B1 12, and a destination address equal to the IP address 44 of the proxy server 42. The message 66 passes through the router 34 which uses the simple

> NAT function to forward a translated message 67 to the proxy server 42 having the true IP address 16 of terminal B1 12 changed to the public IP address 17. The packet reaches the proxy server 42, which uses the dynamic port numbers from the message plus the public IP address (206.1.1.1) of terminal B1 12 to open its pre-assigned ports 33 to send the audio signal to terminal B1 12. **The router 34 does not change the addresses in the H.323 message.**

This is represented by:

			Before	After
TCP	Source	IP/Port:	10.11.1/PB1	206.1.1.1/PB1
	Destination	IP/Port:	45.6.7.8/2777	45.6.7.8/2777
RTP	Address		**10.1.1.1/PB2 (UDP)**	**unchanged**
RTCP	Address		**10.1.1.1/PB3 (UDP)**	**unchanged**

Read, ¶¶ 114-116 (emphasis added); *see also Read*, FIG. 9D. As shown above, *Read* does not modify the address of his response signal in the payload of his IP packet. *Young* does not cure the deficiencies in *Read*. Thus, the combination of *Read* and *Young* fails to disclose that the proxy server modifies an address of a response signaling in a load of the response signaling message.

Fourth, claims 13 and 18 recite that the proxy server records the address of a call signaling **in a load (e.g. payload) of the signaling message**. While he maintains a mapping between public and private IP addresses in the header of the messages he processes, *Young* does not record any of the addresses in the **payload** of his IP messages:

> Similarly, the MAND 1000 replaces the public IP addresses and UDP port references in SDPs from the call control server, SIP server or gateway with the MAND private IP address and UDP ports. For initiation of sessions, the MAND will maintain an ALG database entry for the SIP session that should require the inclusion of Call-ID and tag to identify the session. To keep track of the connections for RTP forwarding, the MAND maintains a database map between private and public IP addresses and UDP ports. If, however, the call is from an IP phone 950 to another IP phone 950 on the same private network, the MAND does not modify the SDP or H.245 message to forward the RTP to the WAN interface 10. Instead, it sets up the connection so that the phones send RTPs directly to each other over the LAN interface 30.

Young, ¶ 78 (emphasis added). As shown above, *Young* does not record any of the addresses in the payload of his IP messages. *Read* does not cure the deficiencies in *Young*. Thus, the combination of *Read* and *Young* fails to disclose that the proxy server records the address of a call signaling in a load of the signaling message. As such, the combination of *Read* and *Young* fails to disclose at least one element of independent claims 13 and 18, and consequently fails to render obvious claims 13-23.

CONCLUSION

Consideration of the foregoing amendments and remarks, reconsideration of the application, and withdrawal of the rejections and objections is respectfully requested by the Applicants. No new matter is introduced by way of the amendment. It is believed that each ground of rejection raised in the Office Action dated December 23, 2009 has been fully addressed. If any fee is due as a result of the filing of this paper, please appropriately charge such fee to Deposit Account Number 50-1515 of Conley Rose, P.C., Texas. If a petition for extension of time is necessary in order for this paper to be deemed timely filed, please consider this a petition therefore.

If a telephone conference would facilitate the resolution of any issue or expedite the prosecution of the application, the Examiner is invited to telephone the undersigned at the telephone number given below.

Respectfully submitted,
CONLEY ROSE, P.C.

Date: 2/22/10

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